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Tuna Newsletter

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- Southwest Region
- Southwest Fisheries Science Center

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U.S. TUNA STATISTICS

Editor's note: The following articles were prepared by NMFS personnel from data and information gathered from sources in the U.S. tuna industry and government.

U.S. CANNED TUNA INDUSTRY HIGHLIGHTS, JANUARY 1997

Total receipts of tuna by U.S. canners during the month of January 1997 decreased by 7% to the equivalent of 22,400 short tons (st) of whole fish (round weight), compared to January 1996 (Table 1). Receipts were down for all three species. The principal species received was skipjack tuna with 57% of the total, followed by yellowfin tuna and albacore with 26% and 17% of the total, respectively.

Although the vast majority of tuna received by U.S. canners is whole fish, some quantity is received as loins or gilled-and-gutted. Receipts of tuna loins for January 1997 were down by 6%. (Loins and gilled-and-gutted receipts are converted to round weight receipts by factors of 2.25 and 1.11, respectively. For this article, unconverted receipts are used unless otherwise stated.)

Domestic deliveries to U.S. canners for January 1997 decreased by 21%, while imported deliveries increased by 19% (Table 2). Skipjack tuna was easily the largest component of all domestic deliveries at 8,800 st. Domestic deliveries outpaced imports by 2,000 st.

Albacore was the leading import at 3,600 st, followed by skipjack tuna and yellowfin tuna at 3,100 st and 2,400 st, respectively (Table 3).

Table 1. Total U.S. cannery receipts (st) by species for the months of January 1996 and 1997. Totals may not add due to rounding.

January	Type	Albacore	Skipjack	Yellowfin[1]	TOTAL
1996	ROUND	4,400	10,500	4,700	19,700
	GILLED & GUTTED	*	0	300	300
	LOIN	0	1,300	500	1,800
	TOTAL (as received)	4,400	11,900	5,500	21,800
	TOTAL (round weight)[2]	4,400	13,500	6,200	24,100
1997	ROUND	3,600	11,200	3,900	18,600
	GILLED & GUTTED	*	0	*	100
	LOIN	100	800	800	1,700
	TOTAL (as received)	3,700	12,000	4,700	20,300
	TOTAL (round weight)[2]	3,800	12,900	5,800	22,400

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

[2]Converted to round weight by using factors of 1.11 for gilled-and-gutted and 2.25 for loins.

Table 2. U.S. cannery receipts (st) of domestic and imported tuna by species for the months of January 1996, 1997 and the recent (1992-96) January averages. Totals may not add due to rounding.

January	Source	Albacore	Skipjack	Yellowfin[1]	TOTAL
		TOTAL CANNERY RECEIPTS (ALL LOCATIONS)			
1996	DOMESTIC	*	9,600	4,500	14,100
	IMPORTED	4,400	2,200	1,000	7,700
	TOTAL	4,400	11,900	5,500	21,800
1997	DOMESTIC	*	8,800	2,300	11,200
	IMPORTED	3,600	3,100	2,400	9,200
	TOTAL	3,700	12,000	4,700	20,300
1992-96 Average	DOMESTIC	200	13,900	3,800	17,800
	IMPORTED	5,600	3,000	1,100	9,700
	TOTAL	5,700	16,800	4,900	27,400

*Less than 100 st reported for this category.
[1]May include a small amount of bigeye tuna.

Table 3. U.S. cannery imports (st) of tuna by species and source (flag of catcher vessel) for January 1997. Totals for January 1996 are given for comparison. Note that the flag of the catcher vessel does not necessarily reflect the country of export or point of shipment. Totals may not add due to rounding.

VESSEL FLAG	1997				1996
	Albacore	Skipjack	Yellowfin[1]	TOTAL	TOTAL
AMERICAN SAMOA	*	0	0	*	*
BELIZE	0	100	100	300	400
ECUADOR	100	200	500	800	700
FSM	0	400	0	400	100
FIJI	*	0	0	*	*
FRANCE	*	2,000	1,500	3,500	200
HONDURAS	800	*	0	800	0
JAPAN	100	0	0	100	1,000
NEW ZEALAND	200	0	0	200	100
PANAMA	100	0	0	100	600
SOUTH KOREA	600	0	0	600	100
SPAIN	0	*	*	100	0
SRI LANKA	200	*	0	200	0
TAIWAN	1,400	100	*	1,500	2,500
URUGUAY	*	0	*	*	0
USA	0	*	*	*	400
VANUATU	0	300	200	400	900
WESTERN SAMOA	200	0	*	200	*
OTHER	0	0	0	0	500
TOTAL	3,600	3,100	2,400	9,200	7,700

*Less than 100 st reported for this category.
[1]May include a small amount of bigeye tuna.

The leading supplier was France with 38% of the import market, followed by Taiwan with 16%, and Ecuador and Honduras, each with 9% of the market.

The western Pacific Ocean was the source of 68% of the tuna received by U.S. canners during January 1997 (Table 4). The next greatest source was the Indian Ocean which accounted for 18% of the tuna received by U.S. canners.

U.S. TUNA FISHERIES UPDATE

EASTERN PACIFIC TROPICAL TUNA FISHERY

During the period January through June 1997, eight U.S. tuna purse seiners participated in the eastern tropical Pacific tuna fishery and caught an estimated 5,100 metric tons (mt) of yellowfin tuna, 6,300 mt of skipjack tuna and 1,900 mt of bigeye tuna (Figure 1). The yellowfin tuna catch was down 19%, the skipjack tuna catch was up 5% and the bigeye tuna catch was down 30% compared to the same period of 1996.

The surface fleets (purse seiners and baitboats) of all nations fishing in the eastern Pacific Ocean caught an estimated 150,900 mt of yellowfin tuna, 61,200 mt of skipjack tuna and 19,800 mt of bigeye tuna. The leading nation was Mexico with 34% of the total catch, followed by

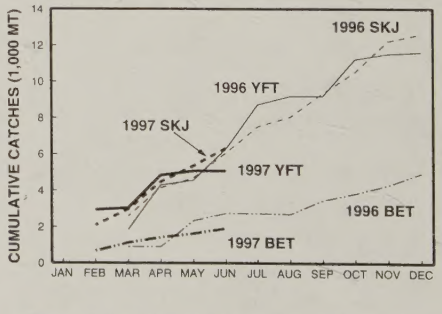

Figure 1. Cumulative tuna catches, by month, for the U.S. eastern tropical Pacific purse seine fishery, 1996 and 1997. Note that data are not available for the first two months of 1996.

Table 4. Receipts (st) of tuna by U.S. canneries by species and area of capture for the months of January 1996 and 1997. Totals may not add due to rounding.

SOURCE	Albacore		Skipjack		Yellowfin[1]	
	1996	1997	1996	1997	1996	1997
E. ATLANTIC OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	400	300	0	0	0	0
TOTAL	400	300	0	0	0	0
W. ATLANTIC OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	400	*	0	0	0	*
TOTAL	400	*	0	0	0	*
E. PACIFIC OCEAN						
DOMESTIC	0	0	1,100	900	500	300
IMPORTED	100	100	1,100	600	500	800
TOTAL	100	100	2,300	1,500	1,000	1,100
W. PACIFIC OCEAN						
DOMESTIC	*	*	8,500	7,900	4,000	2,100
IMPORTED	3,500	3,300	1,100	500	600	*
TOTAL	3,500	3,300	9,600	8,500	4,600	2,100
INDIAN OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	0	0	0	2,000	0	1,600
TOTAL	0	0	0	2,000	0	1,600

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

Ecuador with 17% and Venezuela with 16%. The U.S. fleet accounted for 6% of the tuna catch.

WESTERN PACIFIC TROPICAL TUNA FISHERY

For the period January through June 1997, U.S. tuna purse seiners fishing in the western tropical Pacific under the South Pacific Tuna Treaty landed an estimated 58,100 mt of skipjack tuna and 18,900 mt of yellowfin and bigeye tuna (Figure 2). The skipjack tuna landings and the combined yellowfin and bigeye tuna landings were each up by 6% from the 1996 landings for the same period. Thirty-three vessels landed tuna from 81 trips through June 1997 compared to 38 vessels and 79 trips in 1996. *(Report provided by Doug Prescott, NMFS Southwest Fisheries Science Center, La Jolla, CA)*

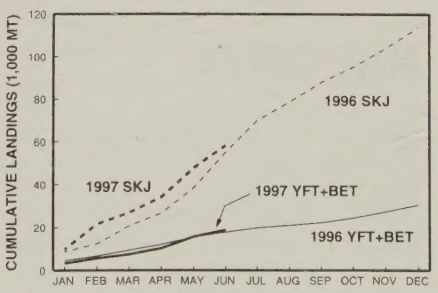

Figure 2. Cumulative tuna landings, by month, for the U.S. western tropical Pacific purse seine fishery, 1996 and 1997.

NORTHERN PACIFIC ALBACORE FISHERY

The 1997 U.S. North Pacific albacore troll season began in May 1997 north of Midway Island. Fishing was good in late May near the international dateline and 35°N latitude. Several reports of freshly gill-net-damaged fish were received from troll vessels, suggesting the occurrence of illegal high-seas drift net fishing. Catches declined in early June, and several vessels unloaded in Hawaii as the first "run" of the season ended. Transshipment vessels will be unloading troll vessels at sea and transporting fish to the canneries in American Samoa throughout the season which is expected to continue through October. Much of the fishing effort is expected to occur in an area near 40°N and 150°W, similar to last season. One NMFS observer is accompanying a troll vessel to collect logbook, length-frequency and gill net interaction information.

The average catch per unit of effort (in numbers of fish caught per day of fishing) for the 1996 North Pacific season was 91 fish per day. An increased number of Canadian troll vessels participated in the 1996 North Pacific season and will participate in the 1997 season. Revisions to the U.S.-Canadian fishing treaty allow Canadian vessels to sell their catches in more U.S. ports this season. Approximately 15,600 mt of albacore were landed by the U.S. troll fleet during the 1996 North Pacific fishery. *(Report provided by John Childers, NMFS Southwest Fisheries Science Center, La Jolla, CA)*

SOUTHERN PACIFIC ALBACORE FISHERY

The 1996-97 U.S. South Pacific albacore fishery began in December 1996 and ended in March 1997. Approximately 25 troll vessels participated in the fishery. Fewer vessels have fished in the southern fishery in recent years due to decreased success. This season's total landings were approximately 1,750 mt. Landings from the 1995-96 season were 2,186 mt. Landings by the U.S. troll fleet since 1993 have averaged 1,454 mt per season. Log-

book and length-frequency data are currently being processed by NMFS scientists. *(Report provided by John Childers, NMFS Southwest Fisheries Science Center, La Jolla, CA)*

WESTERN ATLANTIC BLUEFIN TUNA FISHERY

The effort controls for the U.S. Atlantic bluefin tuna (ABT) General category fishery have been established for the 1997 fishing season. The 1997 General category quota is split, based upon historical catch patterns (1983-1996), into three subquotas and distributed as follows: 60% (374 mt) for June-August, 30% (187 mt) for September, and 10% (62 mt) for October-December. An additional 10 mt are reserved for the late season New York Bight General category fishery.

Restricted-fishing days for 1997, on which persons aboard vessels permitted in the General category are prohibited from fishing for ABT of all sizes, are as follows: July 16, 17, 23, and 30; August 6, 10-12, 17, 20, 24, and 27; and September 1, 3, 6, 7, 10, 11, 14, 17, 19, 21, 24, and 28. On these designated restricted fishing days, persons aboard vessels permitted in the Charter/Headboat category may fish for school, large school, and small medium ABT only, provided the Angling category remains open, and must abide by the catch limits in effect.

NMFS has also issued a final rule (effective July 14, 1997) which prohibits the use of aircraft to assist fishing vessel operators in the location and capture of ABT, with the exception of vessels permitted in the Purse Seine and Harpoon categories.

For the 1997 U.S. commercial western Atlantic bluefin tuna fishery through July 3, 410 fish have been landed with a gross weight of 80.05 mt and an average weight of 430.4 pounds per fish. A summary of landings is given in Table 5. *(Report provided by Mark Murray-Brown, NMFS Northeast Region, Gloucester, MA)*

Table 5. U.S. commercial landings of Atlantic bluefin tuna for 1997 through July 3.

Category	Number of Fish	Avg. Wt. (lbs.)	Gross Wt. (mt)	Quota (mt)
GENERAL	109	411.1	20.32	633
Handline	0	-	0.00	
Rod & Reel	69	419.6	13.13	
Harpoon	40	396.4	7.19	
HARPOON	126	384.3	21.96	53
INCIDENTAL	150	507.5	34.53	110
Longline	138	528.1	33.06	109
North	36	437.9	7.15	23
South	102	560.0	25.91	86
Other	12	269.5	1.47	1
PURSE SEINE	0	-	0.00	250
Giant	0	-	0.00	
Large Medium	0	-	0.00	
ANGLING[1]	25	285.1	3.23	6
North	0	-	0.00	2
South	25	285.1	3.23	4
RESERVE	0	-	0.00	33
TOTAL	410	430.4	80.05	1,085

[1]Records Large Medium and Giant size class (Trophy); does not include School, Large School or Small Medium size class tuna harvested in Angling Category.

REPORTS

Editor's note: Original reports are published as a service to subscribers and may not represent the views of the NMFS. Readers should contact the authors of reports for details, if needed.

The following article is an extended abstract of a paper presented by IATTC scientists at the 48th Annual Tuna Conference held at Lake Arrowhead, California, on May 19-22, 1997. Most of the information has appeared in the following IATTC publications: IATTC Quarterly Reports for January-March 1997 and April-June 1997, and the IATTC Annual Report for 1996 (in press). This information is not to be cited without the permission of the authors.

Captive Spawning of Yellowfin Tuna and the Development of Their Eggs and Larvae

Daniel Margulies[1], Vernon P. Scholey[2], Jeanne B. Wexler[1], Robert J. Olson[1], Akio Nakazawa[3], and Jenny M. Suter[1]

Since June 1996, broodstock yellowfin tuna have been held in two large concrete tanks (17-m diameter, 6-m depth; and 8.5-m diameter, 3-m depth) at the Inter-American Tropical Tuna Commission's Achotines Laboratory in Los Santos Province, Panama. The broodstock development is part of a joint project

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[3]Overseas Fishery Cooperation Foundation, Achotines Laboratory, Las Tablas, Los Santos Province, Republic of Panama

by the IATTC, the Overseas Fishery Cooperation Foundation of Japan, and the Republic of Panama to investigate the feasibility of captive spawning and culture of yellowfin tuna for research purposes. In this paper, we describe the sustained spawning of yellowfin in captivity. To our knowledge, this is the first reported spawning of yellowfin tuna in land-based tanks anywhere in the world.

Expansion of and improvements to the infrastructure of the Achotines Laboratory were necessary to carry out the yellowfin project. Construction of the large concrete tanks and expansion of the seawater and life support systems to maintain the broodstock fish were completed by mid-1996. Yellowfin in the initial size range of 2.3 to 6.6 kg were collected in nearshore waters adjacent to the Achotines Laboratory to establish the broodstock population. Procedures for tagging and handling captured yellowfin were developed; these included measurements of lengths and weights, implantation of microchip identifier tags, and injection of oxytetracycline (OTC) to place temporal marks in the otoliths and vertebrae.

The diet of the broodstock is being monitored to ensure that it provides enough energy to fuel high growth rates and spawning but does not cause excess fat deposition. Four types of food have been fed to these fish: squid (*Loligo opalescens*), anchoveta (*Cetengraulis mysticetus*), thread herring (*Opisthonema* spp.), and bigscale anchovy (*Anchovia macrolepidota*). A bioenergetics model, combined with growth rate estimates of the population, is being used as a guideline for the daily ration schedules. Growth of the broodstock fish has been rapid. The average size in July 1996 was approximately 60 cm in length and 6 kg in weight, while the current (July 1997) estimated average size is approximately 110 cm in length and 25 kg in weight.

In early October of 1996, the yellowfin broodstock in the larger tank began spawning, and continued spawning at nearly daily intervals through mid-March 1997. At the time of initial spawning the water temperature in the large tank was 27.5°C. When spawning ceased in mid-March, water temperatures had decreased below 24°C due to the onset of typical upwelling conditions in the coastal waters of the Panama Bight. There was no spawning of the broodstock for approximately one month, and in mid-April of 1997, as water temperatures increased to 24°C, spawning resumed. In addition, yellowfin held in the smaller reserve tank also began spawning in mid-April and have continued to spawn daily. The numbers of broodstock fish have ranged from 36 to 45 in the larger tank and 6 to 19 in the smaller tank.

Spawning has occurred from the late afternoon to early evening, and each spawning event has been preceded by courtship behaviors exhibited by broodstock fish in the mid-afternoon. These courtship behaviors include the formation of pre-spawning aggregations, pairing of individuals, parallel swimming, rapid color flashes exhibited by individual fish, and rapid horizontal and/or vertical swimming.

The numbers of fertilized eggs collected after each spawning event have ranged from about 100 to 800,000. Hatching rates of collected eggs have ranged from approximately 30% to 90% since the initial spawning, although hatching rates have been consistently higher (70% to 100%) since January 1997. Several initial larval feeding trials have been conducted using cultured rotifers, brine shrimp nauplii, and wild zooplankton as food. Larvae have survived up to 30 days after hatching. Laboratory experiments are planned for mid-1997 to examine the growth, survival and food preferences of yellowfin larvae.

RECENT DEVELOPMENTS IN TUNA FISHERIES

Editor's note: The following news items, compiled from fishery trade and industry journals, newspapers and NMFS reports, are provided only as a service to our readers. The NMFS does not guarantee their accuracy.

UNITED STATES

Van Camp Sale: On April 15, 1997, Van Camp Seafood announced that it had entered into an agreement to sell its assets to Tri-Union Seafoods, and that Van Camp had filed a voluntary petition under Chapter 11 of the U.S. Bankruptcy Code to facilitate the sale. (The subsidiary VCS Samoa Packing also filed for Chapter 11.) Van Camp markets "Chicken of the Sea" brand seafood. A June 25, 1997, hearing on the proposed sale of Van Camp Seafood to Tri-Union Seafoods for approximately $92 million was set by the U.S. Bankruptcy Court, San Diego, CA. The Van Camp sale motion states that Tri-Union will pay $8.5 million if, within 3 years of sale closing, Tri-Union merges with more than 50% of the securities or assets of Bumble Bee Seafoods. On June 18, 1997, Mermaid Seafood filed an objection to the proposed sale, alleging Van Camp with disposing of assets and *de facto* restructuring of the debtor-creditor relationship without filing a reorganization plan. The U.S. Bankruptcy Court continued the June 25, 1997, hearing on the sale motion until July 9, 1997. (Van Camp Seafood press release and Dow Jones News)

Bumble Bee: Bumble Bee Seafoods of San Diego is being bought by International Home Foods of New Jersey for a reported $190 million. Cash of $160 million is being paid, and extra financing will bring the deal up to $190 million. The brand will have improved access to

store shelves as the company's buyer markets products ranging from mustard to popcorn. Bumble Bee had been bought by Unicord of Thailand in 1989 for $238 million and operated with a debt burden, which made it less competitive. The company eventually had to file for Chapter 11 protection and has entered bankruptcy for authorization of the sale. Fish buying was expected to continue as usual. One-hundred-year-old Bumble Bee is one of the world's largest distributors of canned tuna and salmon and is the second largest tuna producer in the U.S. It has a 23% share of the total canned tuna market compared to 45% for StarKist Foods and 14% for Chicken of the Sea. Bumble Bee leads with a 39% market share in white meat tuna. (**Fishing News International**, June 1997)

H.J. Heinz Restructuring: The so-called "Project Millennia" will reduce H.J. Heinz's full-year pre-tax earnings by about $650 million in the 1997 financial year. Tuna sales in Europe are expected to rise, with supplies coming from the company's canneries in Ghana and the Seychelles. (Last fiscal year saw operating profits from European sales of tuna shooting up by 200%). Labor-intensive tuna cleaning operations at StarKist plants in Puerto Rico and American Samoa will also be automated. In doing so the company hopes to save $12-15 million annually and to lower production costs considerably. (INFOFISH *Trade News*, May 2, 1997)

Z Boats Auctioned: A tuna fishing era was dimmed when the auction of four Z Fleet seiners in San Diego, CA, raised $18.2 million. The sale, attended by 40 potential buyers, followed last year's collapse of the Z Group fleet run by the Zuanich family. This led to the impoundment of tuna seiners in various countries and to the U.S. auction on April 23, 1997. Four tuna seiners in San Diego had been seized by the U.S. Marshal for various defaults under preferred mortgages to the U.S. government. Successful bids were made for *Milagros Z* (1,310 gt) $5.4 million, *Soleil Z* (1,042 gt), $5.2 million; *Larry Z* (989 gt) $3.5 million, and *Yolanda Z* (1,308 gt) $4.1 million. (*Fishing News International*, May 1997)

Atlantic Swordfish Drift Gillnet Closure: On May 30, 1997, NMFS announced an extension of the emergency closure of the Atlantic swordfish drift gillnet fishery for an additional 180 days, through November 26, 1997. The emergency closure was extended after NMFS issued a biological opinion on May 29, 1997, concluding that Atlantic swordfish, shark and tuna driftnet fisheries were likely to jeopardize the continued existence of the North Atlantic right whale. (NMFS press release)

Atlantic Shark Quota Cut: The NMFS has enacted its plan to cut Atlantic commercial shark fishing quotas by 50%. The new plan reduces total fishing effort on the 39 federally managed species of large coastal, pelagic and small coastal sharks and bans directed fishing on 5 species of sharks: whale, basking, sand tiger, bigeye sand tiger and white sharks. This year's quota of 1,275 mt is half of the 1996 quota. Also, a quota for small coastal sharks will be established for the first time. Recreational fishermen will be limited to two sharks per vessel per trip, plus two Atlantic sharpnose sharks per person per trip.

"From fishermen to environmental organizations, everyone agrees that Atlantic shark populations are in a precarious state, and fishing pressure needs to be reduced," said Rebecca Lent, chief of the NMFS's Highly Migratory Species Division. "After collecting comments from hundreds of fishermen and conservationists, we feel we've developed a rule that will avert further overfishing and stabilize Atlantic shark populations before they dwindle to a point where fishermen and the American public are left without this important resource." (*National Fisherman*, June 1997)

Large Coastal Shark Quota Met: NMFS announced that the 326 mt commercial quota for large coastal Atlantic sharks for the season beginning July 1, 1997, would be met on July 21. As of 11:30 p.m. on July 21, the commercial fishery for large coastal sharks will be closed for the remainder of the year. (*Federal Register*, July 16, 1997)

Virginia Shark Limit: On April 22, 1997, the Virginia Marine Resources Commission voted to prohibit the commercial landing of sharks less than 58 inches in length. (Associated Press)

Seafood Inspection: On May 12, 1997, officials of the Clinton Administration proposed that more seafood inspectors be hired, as part of a broad plan to increase surveil-

UPCOMING TUNA MEETINGS

(Organizer; meeting type: sci=science, adm=administration)

- SEP 17-18 U.S. skipper's meeting with FFA, San Diego, CA. (FFA; adm)
- SEP 22-23 U.S.-FFA meeting, San Diego, CA. (FFA; adm)
- OCT 25-27. 5th World Tuna Trade Conference. Bangkok, Thailand. (INFOFISH)
- DEC 3-5. 15th Northern Pacific Albacore Workshop. Nanaimo, BC, Canada. (Canadian Dept. of Fisheries and Oceans; sci)

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- May 18-21. 49th International Tuna Conference. Lake Arrowhead, CA. (NMFS; sci)

lance of imported foods and improve U.S. food safety. (Reuters)

PACIFIC OCEAN

Bluefin Tuna Tagging Program: Juvenile bluefin tuna have been tagged with archival tags in the western Pacific Ocean by the Japanese Research Institute of Far Seas Fisheries. Archival tags record time, light, pressure, ambient temperature, and internal temperature of the fish at frequent intervals. When the tag is recovered this information can be used to determine the location and depth of the fish at each interval between release and recapture.

In December 1995, 58 age-0 and age-1 bluefin were tagged with archival tags and released in the east China Sea. In November 1996 an additional 47 age-0 and age-1 fish were tagged and released in the same area. The first experiment has produced eight recaptures, five of which were at liberty less than one month and three of which were at liberty about six months. Of the latter three, one was recaptured in the Sea of Japan, one east of Japan, and one in the east China Sea. The second experiment has produced six recaptures, four of which were at liberty less than two months and two of which were at liberty about six months.

Three types of diurnal behavior have been observed. First, the fish inhabited greater depths during the daytime than during the nighttime. Second, the temperature of the viscera of the fish was higher during the day than at night. Third, the fish tended to descend rapidly at dawn and ascend rapidly at dusk. (IATTC)

Philippine Exports: Exports of canned tuna from the Philippines were at a record high last year, from 5.2 million cartons in 1995 to 6.6 million cartons in 1996. The previous record was for 1994, when production reached 6.4 million. The U.S. maintained its position as the major buyer, with sales to the U.S. increasing by 23%. The second leading buyer was Singapore, which took over Germany's usual position. Significant increases were also seen for Austria, Denmark, Finland, South Africa and Sweden. (INFOFISH *Trade News*, May 2, 1997)

Cannery Project Cancelled: In December 1996 the government of Papua New Guinea cancelled a major tuna cannery project at Madang with ZZZ (PNG) Canning Pty Ltd, a subsidiary of the Guam-based Z Group. The company had planned to fish in waters off Papua New Guinea to supply a new cannery. However, it is reported that the project ran into construction problems due to a cement import ban and was also hurt by low tuna prices. (*Fishing News International*, May 1997)

EU/Costa Rica Discrepancy: A 1996 study of the canned tuna industry in Costa Rica indicated a large discrepancy between the more than 10,000 mt the country exported to the European Union and the actual capability of the national fleet. The market value of the exports was estimated at $32 million. The study concluded that most of the tuna landed in Costa Rica was actually caught by ships of other nations, which means that the tuna should not have been allowed duty-free access to the EU. (INFOFISH *Trade News*, May 16, 1997)

Alleged Deception: On May 19, 1997, Japanese Health and Welfare Ministry officials announced that they had begun an inquiry into the alleged injection of carbon monoxide into frozen imported raw tuna to redden its flesh, thus potentially deceiving consumers as to its freshness. (Dow Jones News)

Developing *El Nino*: On May 15, 1997, NOAA announced that early indications had been detected of, and models appeared to confirm, a developing *El Nino* condition in the tropical Pacific Ocean. (NOAA press release)

INDIAN OCEAN

IOTC Update: The Indian Ocean Tuna Commission had its first Special Session at the Headquarters of the FAO in Rome from April 21-24 immediately after the 23rd Session of the FAO's Committee on Fisheries. The IOTTC Work Program for 1997 and 1998 was adopted. The main items of work under the 1997 program include the appointment of the Secretary of the Commission, arranging the collection of contributions from members of the Commission, arranging for the familiarization of the future data analyst/programmer regarding the data handling procedures of the IPTP, preparation of the Commission's headquarters agreement with the Government of Seychelles, finalizing arrangements to set up the headquarters and making preparations for an Expert Consultation on Indian Ocean Tunas to be held in 1998. (*Indian Ocean Tuna News*, March 1997)

Tuna Fishing in Somalia: The Indian Ocean coast of Somalia is seasonally rich in tuna. In 1996 the leaders of Somalia joined together to appoint the African & Middle East Trading Company (AFMET) to negotiate with fishing companies wanting access to Somalia's fish resources. Vessels granted access have supplied detailed data on their catches and operations. Between August 21 and December 21, 1996, 43 purse seiners were licensed to fish in the Somalia Exclusive Economic Zone. Catch in the EEZ amounted to just under 20,000 mt, the majority of which was caught between 3° and 5°N and 48° and 51°E. Catch was greatest in October, when 28 vessels fished inside the EEZ. The species composition of the total catch was 80% skipjack tuna, 9% yellowfin tuna, 5% bigeye tuna and 5% other species. Landings by country were as follows: Belize, 1,475 mt; France, 6,685 mt; and Spain, 11,365 mt. (*Indian Ocean Tuna News*, March 1997)

Senegal-EU Agreement: The European Union and Senegal have signed a new agreement which will run for a period of four years from May 1, 1997. The agreement allows up to 76 EU tuna vessels and a maximum of 22 other pelagic vessels to operate in Senegalese waters. The annual limit set for the pelagic catch is 25,000 mt. (INFOFISH *Trade News*, May 2, 1997)

ATLANTIC OCEAN

Italian Driftnet Reconversion: On May 2, 1997, the European Union Council approved the financing of an Italian plan to reconvert the Italian swordfish driftnet fleet to alternative gear. Italy and the EU will co-fund the reconversion during a three-year period. However, Greenpeace is concerned that Italy may simply sell driftnets to other Mediterranean countries where they would still be used. (Agence Europe via Reuters)

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Russia Ratifies Straddling Stocks Agreement: On April 25, 1997, the Russian press reported that President Boris Yeltsin had signed a federal law ratifying the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. (ITAR-TASS via Foreign Broadcast Information Service)

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